

10/045,901

Present Claims

1. (Canceled)

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

10/045,901

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Currently Amended) A 3D stereoscopic projection system having an input data frame consisting of left eye perspective image and right eye perspective image, said 3D stereoscopic projection system comprising:

10/045,901

a digital micro-mirror display with an internal color management system; and
a switcher for optically switching between said left eye perspective image and
said right eye perspective image in flicker free fashion, said switcher coupled to said
digital micro-mirror display,

wherein said switcher outputs a synchronized display frame, said synchronized
display frame having a rate which is independent of the rate at which image data said
input data frame is received by said 3D stereoscopic projection system and wherein said
switcher does not have a sync timing signal.

23. (Previously Presented) The system of claim 22 wherein said switcher is
independent of any clock signal internal to said 3D stereoscopic projection system.

24. (Previously Presented) The system of claim 22 wherein said switcher is
independent of any index signal internal to said 3D stereoscopic projection system.

25. (Previously Presented) The system of claim 22 wherein said switcher is
synchronized to a color wheel index signal.

26. (Previously Presented) The system of claim 22 further comprising:
a decoupler for decoupling said optically switching between said left eye
perspective image and said right eye perspective image from an input image data rate.

27. (Previously Presented) The system of claim 22 further comprising:

10/045,901

means to convert an incoming stereoscopic image data format into a column multiplexed format.

28. (Previously Presented) The system of claim 27 wherein said decoupler uses a spatial-temporal stereoscopic image multiplexing method.

29. (Previously Presented) The system of claim 27 further comprising:
a means for optically encoding a sequence of left-right images for transmission to an observer.

30. (Previously Presented) The system of claim 28 wherein said spatial-temporal stereoscopic image multiplexing method comprises a 3D Data Formatter that (a) converts stereoscopic image data encoded in a format selected from the group consisting of field sequential stereoscopic format, frame sequential ("page-flipped") stereoscopic format, over-under stereoscopic format, side-by-side stereoscopic format, row interleaved stereoscopic format, and column interleaved stereoscopic format, into the column interleaved stereoscopic format with said column interleaved stereoscopic format being a spatial method for encoding a stereoscopic image into a single image data stream, (b) demultiplexes stereoscopic image data encoded in a format selected from the group consisting of field sequential stereoscopic format, frame sequential ("page-flipped") stereoscopic format, over-under stereoscopic format, side-by-side stereoscopic format, row interleaved stereoscopic format, and column interleaved stereoscopic format, into two separate left and right image data channels for the purpose of performing image

10/045,901

interpolation on each left or right image data separately, and (c) converts the image data frame rate from any standard frame rate on the input, to a single pre-determined image data frame rate on the output.

31. (Previously Presented) The system of claim 28 wherein said spatial-temporal stereoscopic image multiplexing method comprises a 3D Display formatter that converts spatially multiplexed stereoscopic image data in a column-alternate format into a time-sequential format for transmission to an observer by the DMD Display.

32. (Previously Presented) The system of claim 22 further comprising: a column blunker for converting said spatially multiplexed stereoscopic image data in the column-alternate format into a time-sequential format for transmission to an observer by the DMD Display.

33. (Previously Presented) The system of claim 22 further comprising: a column doubler for converting said spatially multiplexed stereoscopic image data in the column-alternate format into a time-sequential format for transmission to an observer by the DMD Display.